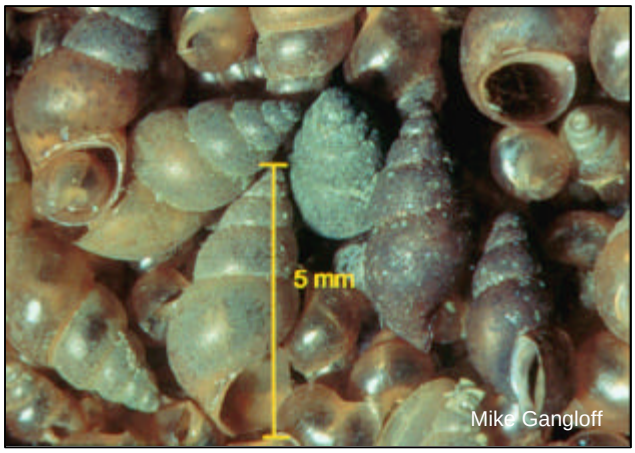
NONINDIGENOUS SPECIES INFORMATION BULLETIN: New Zealand mudsnail, *Potamopyrgus antipodarum* (J. E. Gray, 1853) (Mollusca: Hydrobiidae)

IDENTIFICATION: New Zealand mudsnails are very small and have an operculum, a plate that covers the opening of the shell. The shell usually displays right-handed coiling and 7 to 8 whorls. The average size is approximately 5 mm; maximum size is approximately 12 mm. Shell colors vary from gray and dark brown to light brown.



NATIVE RANGE: The freshwater streams and lakes of New Zealand and adjacent small islands; it is naturalized in Australia and Europe.

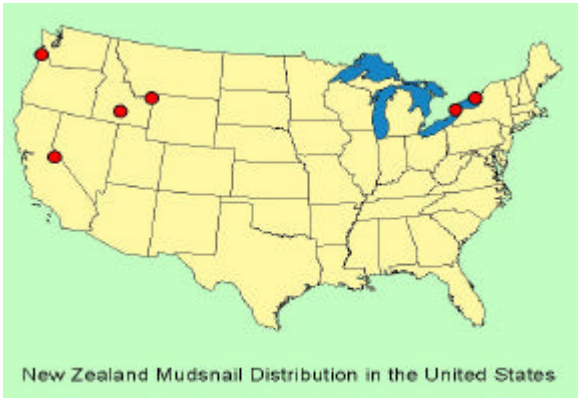
LIFE HISTORY: Mudsnail populations consist mostly of asexually reproducing females that are born with developing embryos in their reproductive system.

HABITAT: This species can be found in all types of aquatic habitats from eutrophic mud bottom ponds to clear rocky streams. It can tolerate a wide range of water temperatures (except freezing), salinity, and turbidity in clean as well as degraded waters. They feed on dead and dying plant and animal material, algae, and bacteria.

MEANS OF INTRODUCTION: The arrival of this aquatic snail was most likely from ship ballast in the Great Lakes or in the water of live gamefish shipped from infested waters to western rivers in the United States.

NONINDIGENOUS OCCURRENCES: This snail was first discovered in the middle portion of the Snake River in Idaho in 1987. Since then, they have been found in the Madison River and several other rivers in and near Yellowstone National Park. They have also been collected from southwestern Lake Ontario, New York, the Welland Canal and northeastern Lake Ontario, Canada. More recently, populations were discovered near the mouth of the Columbia River in Oregon in 1997 and the Owens River in California in 2001.

IMPACTS: Densities have reached over 300,000 individuals per square meter in the Madison River. A species as prolific as this has potential to be a biofouler at facilities drawing from infested waters. It also may compete for food and space occupied by native snails. There is some evidence in their native range that trout may avoid these snails as a prey.


New Zealand Mudsnail Distribution in the United States

Department of the Interior
U.S. Geological Survey
Florida Caribbean Science Center
http://www.fcsc.usgs.gov

For further information, contact:
Florida Caribbean Science Center
7920 NW 71st Street, Gainesville, FL 32653
352-378-8181 (voice) 352-378-4956 (fax)

May 24, 2001
No. 2001-003

CONTROL and MANAGEMENT: Its tolerance of a broad range of ecological factors make the possibility of further spread likely. In moist conditions, this snail can withstand short periods out of the water. The public should be careful to decontaminate fishing and sporting equipment so as not to spread existing populations or start new ones. Regulations on commercial shipping of this species are in effect. This species supports a number of parasites in its native range, but none have been found on any of the North American populations examined.

If you have collected or observed this species or know of someone who has, please call the **Nonindigenous Aquatic Species Toll Free Hotline 1-877-STOP-ANS** and report the information. Or, report it using our website, **http://nas.er.usgs.gov/**.

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